ENGINEERING SYSTEMS ANALYST

DPW Infrastructure Services Division – Administration & Transportation Section

<u>THE PURPOSE:</u> Under general supervision of the Administration & Transportation Design Manager, the Engineering Systems Analyst manages all functions of the Infrastructure Services Division's Information Systems area, including systems analysis, data processing, network administration and planning, procurement, and personnel.

ESSENTIAL FUNCTIONS:

Systems Analysis:

◆ Prepare conceptual and detailed system designs of proposed applications. ◆ Perform detailed application development based upon systems design ◆ Test, implement, and train users on new applications. ◆ Review applications to assure conformity with design and development standards.

Data Processing:

- Assist Division staff in the use of customized software.
- ◆ Participate in the collection, entry, and analysis of data relating to engineering applications. ◆ Troubleshoot customized applications. ◆ Represent the Division to ITMD and other Divisions. ◆ Serve on data processing committees.

Network Administration and Planning:

◆ Oversee the Division's computer networks. ◆ Manage and perform quality assurance functions on software and hardware systems. ◆ Prepare cost estimates for data processing services.

Network Administration and Planning, continued:

◆ Manage the installation of new computer hardware and software. ◆ Assist Division managers in the development of long term information system goals. ◆ Assist in the development of application work processes, schedules, and cost estimates for software and hardware implementation. ◆ Identify resource requirements for proposed applications.

Procurement:

◆ Initiate and manage procurement activities for budgeted hardware. ◆ Prepare and evaluate RFPs. ◆ Research equipment and software alternatives.

Personnel:

- Provide supervision of assigned staff, including making assignments, evaluating performance, and recommending disciplinary action when necessary.
- Perform other duties as assigned.

NOTE: The person in this position may be required to work flexible hours on occasion and lift and carry equipment weighing up to 35 lbs.

MINIMUM REQUIREMENTS:

- 1. Bachelor's Degree in Information Management, Computer Science, Engineering, Applied Science, or a closely related field from an accredited college or university.
- 2. Three years of programming and systems analysis experience that included the development of distributed database applications in a networked computer environment or performing duties related to this position.

NOTE: Equivalent combinations of education and experience may also be considered.

- 3. Valid Wisconsin driver's license at time of appointment and throughout employment.
- 4. Residency in the City of Milwaukee within six months of appointment and throughout employment.

DESIRABLE QUALIFICATIONS:

- Network administration experience.
- Experience working in engineering, preferably in transportation or utility infrastructure (street, alley, sewer, or water).

KNOWLEDGE, SKILLS, ABILITIES, AND OTHER CHARACTERISTICS:

- Knowledge of the principles of engineering.
- Knowledge of general business practices, strategic planning, procurement, and project management.
- Knowledge of data processing and network management concepts and technologies, including programming languages, operating systems, directory services, relational databases, reporting software, geographic information systems, and website administration.
- Ability to oversee the design, installation, and maintenance of network hardware, software, and peripherals.
- Ability to design, implement, and troubleshoot applications.
- Knowledge of standard office applications, including spreadsheet, word processing, and database programs.
- Skill in analyzing and solving complex problems.
- Quantitative reasoning skills.
- · Oral communication skills.

- Ability to read and understand technical publications.
- Ability to write clear documentation, procedures, instructions, and correspondence.
- Ability to effectively supervise staff members, including assigning work, setting performance standards, providing training, and monitoring employee performance.
- Ability to maintain effective working relationships with a wide range of people.
- Ability to work well both independently and as a member of a team.
- Customer service skills.
- Planning, organizational, and time management skills.
- Ability to adapt to changing conditions and make appropriate decisions in stressful situations.
- Ability to maintain confidentiality and serve the public with a high degree of integrity.